

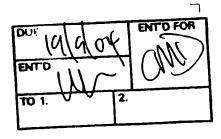
P.B. 5818 - Patentlaan 2 2280 HV Rijswijk (ZH) 2 (070) 340 2040 Tx 31651 epo nl FAX (070) 340 3016 Europäisches Patentamt Zweigstelle in Den Haag Recherchen-

abteilung

European
Patent Office
Branch at
The Hague
Search
Division

Office européen des brevets Département à La Haye Division de la recherche

Kiddle, Simon John Mewburn Ellis LLP York House, 23 Kingsway London WC2B 6HP GRANDE BRETAGNE



RECEIVED

1 () AUG 2004

MEWBURN ELLIS ILLP

Datum/Date

0.9. 08. 2004

CLYSADY FATO.....

Zeichen/Ref./Ref. IMA/FP5832761 Anmeldung Nr./Application No./Demande n°.//Patent Nr./Patent No./Brevet n°

98940779.6-1222/US9815967

Anmelder/Applicant/Demandeur//Patentinhaber/Proprietor/Titulaire Virologic, Inc.

COMMUNICATION

The European Patent Office herewith transmits the partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,--) or the equivalent applicable on the date of payment is payable.

This applies also to the search fees requested under Rule 46(1) EPC.

See also OJ EPO 06/1999, 405.

The abstract was modified by the Search Division and the definitive text is attached to the present communication.

Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.



Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.

LACK OF UNITY OF INVENTION SHEET B

Application Number

EP 98 94 0779

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 4, 21, 25, 26(completely) and 1-3.6-20, 23-24, 28-36 (partially)

A resistance test vector comprising a patient-derived segment and an indicator gene, wherein the patient-derived segment comprises a HCV viral gene, and the use of such a construct in determining the susceptibility of such a vector to anti-HCV drugs.

2. claims: Claims 5, 22, 27 (completely) and 1-3.6-20, 23-24, 28-36 (partially)

A resistance test vector comprising a patient-derived segment and an indicator gene, wherein the patient-derived segment comprises an HCMV gene, and the use of such a construct in determining the susceptibility of such a vector to anti-HCMV drugs.

The common concept of the claimed subject-matter must be seen in the provision of a resistance test vector comprising a patient-derived segment and an indicator gene, wherein the patient-derived segment comprises a viral gene, and the use of such a construct in determining the susceptibility of such a vector to viral drugs. Strair et al. (1993, Nucleic Acids Research, vol. 21, p 4836-4842) discloses a viral vector comprising a "tested" segment and an indicator gene, wherein the tested segment comprises a viral gene (resulting from rescueing a defective provirus encoding either LacZ or gpt with "helper" HIV which is the population which is tested in the assay), and the use of such a construct in determining the susceptibility of such a vector to viral drugs (by infecting host cells with it). W09522622 discloses a vector comprising a patient derived HIV RT gene (claim 17; page 13, lines 12-36) and an antibiotic resistance gene (page 10, lines 24-35) which is used as an indicator to determine the susceptibility of the patient derived segment to candidate viral drugs.

Therefore the common concept of the claimed subject-matter is already disclosed in the prior art, and no other common concept can be distinguished which in the light of the prior art could be regarded as common inventive concept. there is no single inventive concept undelying the plurality of claimed inventions as required by Article 82 EPC.



SUPPLEMENTARY PARTIAL EUROPEAN SEARCH REPORT

Application Number

under Rule 46, paragraph 1 of the European Patent EP 98 94 0779 Convention

<u>'</u>		RED TO BE RELEVANT	Relevant	CLASSIFICATION OF THE
Category	Citation of document with inc of relevant passa		to claim	APPLICATION (Int.Cl.6)
Y	SYSTEMS FOR THE ANAL HIV" NUCLEIC ACIDS RESEAF PRESS, SURREY, GB.	RECOMBINANT RETROVIRALLYSIS OF DRUG RESISTANT RCH, OXFORD UNIVERSITY 93, pages 4836-4842,		C12Q1/68
Y	WO 95/22622 A (UNIV 24 August 1995 (199	5-08-24)	1-4,6-8, 10, 13-21, 23-28, 30-36	
	* the whole documen	t *		
İ		-/		
				TECHNICAL FIELDS SEARCHED (Int.Cl.6)
				C12Q
LACK	OF UNITY OF INVENT	ION	<u></u>	
The Sea	rch Division considers that the present irements of unity of invention and relate	European patent application does not comp es to severalinventions or groups of invention	ly with ns,	
see	sheet B			
The pres	sent partial European search report has pplication which relate to the invention	s been drawn up for those parts of the Europ first mentioned in the claims.	ean	
	Place of search	Date of completion of the search 17 June 2004	Cor	examiner enelis, K
<u> </u>	The Hague			
X:pa Y:pa dox A:teo	CATEGORY OF CITED DOCUMENTS ricularly relevant if taken alone ricularly relevant if combined with anol current of the same category shnological background n-written disclosure	E : earlier patent de after the filing d her D : document cited L : document cited	ocument, but pub ate in the application for other reasons	lished on, or



PARTIAL EUROPEAN SEARCH REPORT

Application Number

EP 98 94 0779

	DOCUMENTS CONSIDERED TO BE RELEVANT	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)	
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	ENOMOTO N ET AL: "Hepatitis C virus quasispecies populations during chronic hepatitis C infection" TRENDS IN MICROBIOLOGY 1995 UNITED KINGDOM, vol. 3, no. 11, 1995, pages 445-447, XP002284841 ISSN: 0966-842X * the whole document *	1-4,6-8, 10,11, 13-21, 24-28, 30-36	
D,A	HAHM BUMSUK ET AL: "Generation of a novel poliovirus with a requirement of hepatitis C virus protease NS3 activity" VIROLOGY, vol.' 226, no. 2, 1996, pages 318-326, XP002284878 ISSN: 0042-6822 * the whole document *	1-36	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
Α	EP 0 291 893 A (DU PONT) 23 November 1988 (1988-11-23) * the whole document *	1-36	
A	WO 94/08002 A (CHIRON CORP) 14 April 1994 (1994-04-14) *Examples: I. Materials and Methods*	34	
P,X	WO 97/27319 A (VIROLOGIC INC) 31 July 1997 (1997-07-31) * the whole document *	1-36	
P,X	WO 97/27480 A (HERTOGS KURT; PAUWELS RUDI (BE); VIRCO NV (BE); BETHUNE MARIE P DE (B) 31 July 1997 (1997-07-31) * the whole document *	1-36	

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 98 94 0779

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-06-2004

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9522622	A	24-08-1995	AU US WO	1923795 A 6130036 A 9522622 A1	04-09-1995 10-10-2000 24-08-1995
EP 0291893	A	23-11-1988	AU DK EP JP KR NZ US ZA	1632788 A 271688 A 0291893 A1 63309185 A 9104101 B1 224667 A 5026635 A 8803529 A	24-11-1988 20-11-1988 23-11-1988 16-12-1988 22-06-1991 27-03-1990 25-06-1991 31-01-1990
	A	14-04-1994	AU CA CA EP EP JP VO US	5141993 A 2145290 A1 2158427 A1 0662128 A1 0718400 A2 8502167 T 2001145494 A 9408002 A2 6057093 A 5922857 A	26-04-1994 14-04-1994 29-03-1994 12-07-1995 26-06-1996 12-03-1996 29-05-2001 14-04-1994 02-05-2000 13-07-1999
WO 9727319	A	31-07-1997	AU CA CN DE EP ES HU JP NO NZ PL WO	732255 B2 1952897 A 2216126 A1 1213407 A 69711584 D1 69711584 T2 1170380 A2 0852626 A1 2175355 T3 9900388 A2 2000503849 T 983421 A 331376 A 328068 A1 118887 B1 9727319 A1	12-04-2001 20-08-1997 31-07-1997 07-04-1999 08-05-2002 07-11-2002 09-01-2002 15-07-1998 16-11-2002 28-05-1999 04-04-2000 25-09-1998 27-03-2000 04-01-1999 30-12-2003 31-07-1997
WO 9727480	Α	31-07-1997	AT AU AU BG BR	217971 T 717755 B2 1316897 A 102710 A 9707204 A	15-06-2002 30-03-2000 20-08-1997 31-03-1999 28-12-1999

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 98 94 0779

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-06-2004

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 9727480 A	C	A 2244735	A1	31-07-199
WU 9727480 //		N 1209875	Α	03-03-199
		• •	A3	16-06-199
		E 69712731	D1	27-06-200
		E 69712731	T2	06-02-200
		P 0877937	A1	18-11-199
		S 2177922	T3	16-12-20
		0 9727480		31-07-19
		L 125442		10-03-20
	_	983300		25-09-19
		Z 325912		28-01-19
		L 328069		04-01-19
·		K 100298		11-02-19
		rR 9801443	T2	21-10-19
		JS 6221578		24-04-20
		JS 2003152917		14-08-20
		JS 2002042679		11-04-20
		ZA 9700669		25-06-19

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82